

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-60 (Canceled)

61. (Currently Amended) A fuel cell manufacturing method for manufacturing a fuel cell, comprising:

a process of feeding a polymer electrolyte membrane formed in strip form, and having conveyance holes formed in series at fixed intervals on a side portion thereof in a lengthwise direction, by rotating a conveyance roller comprising on an outer periphery thereof projections which engage with the conveyance holes, the polymer electrolyte membrane comprising positioning marks formed at predetermined intervals on a side portion thereof in the lengthwise direction; and

a process of positioning and fixing any of a catalyst layer, a gas diffusion layer, and a separator on a surface of the polymer electrolyte membrane on the basis of the conveyance holes and/or the positioning marks,

a process of forming in advance on a surface of the polymer electrolyte membrane a catalyst layer at predetermined intervals in the lengthwise direction and of forming the positioning marks in accordance with the formation position of the catalyst layer, and

a process of using a sensor to detect a displacement speed of the conveyance holes and passage of the positioning marks at a predetermined point through which the polymer electrolyte membrane passes; and

a process of determining a timing for positioning and fixing any of the catalyst layer, the gas diffusion layer, and the separator on the surface of the polymer electrolyte membrane on the basis of the displacement speed of the conveyance holes and a detection timing of the positioning marks.

62. (Canceled)

63. (Canceled)

64. (Currently Amended) The fuel cell manufacturing method as defined in Claim 61, further comprising:

~~a process of using a sensor to detect a displacement speed of the conveyance holes;~~
and

a process of controlling the rotation speed of the conveyance roller such that the displacement speed of the conveyance holes matches a predetermined target displacement speed.

65. (Currently Amended) The fuel cell manufacturing method as defined in Claim [[62]] 61, wherein the positioning and fixing process comprises:

a process of adhering the gas diffusion layer to the catalyst layer; and

a process of adhering the separator to the gas diffusion layer adhered to the catalyst layer.

66. (Previously Presented) The fuel cell manufacturing method as defined in Claim 65, wherein the gas diffusion layer adhering process to the catalyst layer comprises:

a process of pressing the gas diffusion layer, which is coated with a polymer electrolyte liquid, against the catalyst layer to temporarily fix the gas diffusion layer to the catalyst layer; and

a process of applying thermal compression to the catalyst layer and the gas diffusion layer to adhere the gas diffusion layer to the catalyst layer.

67. (Previously Presented) The fuel cell manufacturing method as defined in Claim 65, wherein the gas diffusion layer adhering process to the catalyst layer comprises:

a process of coating the separator with a sealing agent;

a process of pressing the separator coated with the sealing agent against the gas diffusion layer; and

a process of subjecting the sealing agent to thermal drying with the separator pressed against the gas diffusion layer.

68. (Previously Presented) The fuel cell manufacturing method as defined in Claim 61, wherein the polymer electrolyte membrane is covered with a protective sheet in advance, and the manufacturing method further comprises a process of peeling the protective sheet away from the polymer electrolyte membrane prior to the positioning and fixing process.

69. (Previously Presented) The fuel cell manufacturing method as defined in Claim 68, wherein the protective sheet is constituted by a first sheet covering the two side portions of the polymer electrolyte membrane excluding the conveyance holes, and a second sheet covering a central portion of the polymer electrolyte membrane, and the protective sheet peeling away process comprises a process of peeling away only the second sheet while the first sheet is left intact.

70. (Currently Amended) A fuel cell manufacturing device for manufacturing a fuel cell, comprising:

a mechanism for feeding a polymer electrolyte membrane formed in strip form, and having conveyance holes formed in series at fixed intervals on a side portion thereof in a lengthwise direction, by rotating a conveyance roller comprising on an outer periphery thereof projections which engage with the conveyance holes, the polymer electrolyte membrane comprising positioning marks formed at predetermined intervals on a side portion thereof in the lengthwise direction; and

a mechanism for positioning and fixing any of a catalyst layer, a gas diffusion layer, and a separator on a surface of the polymer electrolyte membrane on the basis of the conveyance holes and/or the positioning marks,

wherein the polymer electrolyte membrane comprises a catalyst layer formed in advance on a surface thereof at predetermined intervals in the lengthwise direction and the positioning marks are formed in accordance with the formation position of the catalyst layer, and

a mechanism for using a sensor to detect a displacement speed of the conveyance holes and passage of the positioning marks at a predetermined point through which the polymer electrolyte membrane passes; and

a mechanism for determining a timing for positioning and fixing any of the catalyst

layer, the gas diffusion layer, and the separator on the surface of the polymer electrolyte membrane on the basis of the displacement speed of the conveyance holes and a detection timing of the positioning marks.

71. (Canceled)

72. (Canceled)

73. (Currently Amended) The fuel cell manufacturing device as defined in Claim 70, further comprising:

~~a mechanism for using a sensor to detect a displacement speed of the conveyance holes; and~~

a mechanism for controlling the rotation speed of the conveyance roller such that the displacement speed of the conveyance holes matches a predetermined target displacement speed.

74. (Currently Amended) The fuel cell manufacturing device as defined in Claim [[71]] 70, wherein the positioning and fixing mechanism comprises:

a mechanism for adhering the gas diffusion layer to the catalyst layer; and

a mechanism for adhering the separator to the gas diffusion layer adhered to the catalyst layer.

75. (Previously Presented) The fuel cell manufacturing device as defined in Claim 74, wherein the gas diffusion layer adhering mechanism to the catalyst layer comprises:

a mechanism for pressing the gas diffusion layer, which is coated with a polymer electrolyte liquid, against the catalyst layer to temporarily fix the gas diffusion layer to the catalyst layer; and

a mechanism for applying thermal compression to the catalyst layer and the gas diffusion layer to adhere the gas diffusion layer to the catalyst layer.

76. (Previously Presented) The fuel cell manufacturing device as defined in Claim 74, wherein the separator adhering mechanism to the gas diffusion layer comprises:

a mechanism for coating the separator with a sealing agent;

a mechanism for pressing the separator coated with the sealing agent against the gas diffusion layer; and

a mechanism for subjecting the sealing agent to thermal drying with the separator pressed against the gas diffusion layer.

77. (Previously Presented) The fuel cell manufacturing device as defined in Claim 70, wherein the polymer electrolyte membrane is covered with a protective sheet in advance, and the manufacturing device further comprises a mechanism for peeling the protective sheet away from the polymer electrolyte membrane prior to the operation of the positioning and fixing mechanism.

78. (Currently Amended) The fuel cell manufacturing device as defined in Claim 77, wherein the protective sheet is constituted by a first sheet covering the two side portions of the polymer electrolyte membrane excluding the conveyance holes, and a second sheet covering a central portion of the polymer electrolyte membrane, and the ~~process of peeling away~~ the protective sheet comprises a ~~process of~~ mechanism for peeling away only the second sheet while the first sheet is left intact.